

TSD File Inventory Index

Date: January 24, 2007

Initial: UM General

Facility Name: <u>Morgan Institute Inc. (Union Piquette Division)</u>			
Facility Identification Number: <u>DHD 052 324 290</u>			
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.4 Financial Insurance (Sudden, Non Sudden)		.1 Land Disposal Restriction Notifications	
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Total - 5

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1			

Note: Transmittal Letter to Be Included with Reports.
Comments: _____

NOV 26 1990

5HR-12

Mr. Ken Kupcak
Vernitron Piezoelectric
232 Forbes Road
Bedford, Ohio 44146-5478

Re: Compliance Letter
Vernitron Piezoelectric Division
OHD 052 324 290

Dear Mr. Kupcak:

On June 26, and July 5, 1989, the Ohio Environmental Protection Agency (OEPA), representing the United States Environmental Protection Agency (U.S. EPA), conducted a Resource Conservation and Recovery Act (RCRA) inspection of the above referenced facility. The purpose of the inspection was to determine the compliance status of this facility with respect to the applicable hazardous waste management requirements of Chapter 3734 of the Ohio Revised Code, and also the land disposal restriction regulations as set forth in 40 CFR Part 268 and in revisions to 40 CFR Parts 260-265, 268, 270, and 271.

As a result of the inspection, it appears that the subject facility is in compliance with the land disposal restriction regulations found in 40 CFR Part 268.

Thank you for your cooperation. If you have any questions concerning this letter, please contact Gordon Garcia of my staff at (312) 886-8097.

Sincerely yours,

Sally K. Swanson, Chief
IN/MN/OH Enforcement Program Section

Enclosure

cc: Mike Savage, OEPA
Gregory Taylor, NEDO

bcc: Sally Swanson, REB

5HR-12 garcia.walker 6-8093 diskette #5 filename: ken.kup

CONCURRENCE REQUESTED FROM REB			
OTHER STAFF	REB STAFF	REB SECTION CHIEF	REB BRANCH CHIEF
<i>OK</i> 10/3/90	<i>JP</i> 10/10/90	<i>SKS</i> 11-1-90	



State of Ohio Environmental Protection Agency

Northeast District Office

1110 E. Aurora Road

Twinsburg, Ohio 44087

(216) 425-9171

Richard F. Celeste
Governor

August 15, 1989

RE: VERNITRON PIEZOELECTRIC DIVISION
CUYAHOGA COUNTY
OHD 052-324-290
G/TSD

CERTIFIED MAIL

Ken Kupcak
Vernitron Piezoelectric
232 Forbes Road
Bedford, Ohio 44146-5478

Dear Mr. Kupcak:

The purpose of this letter is to summarize the results of my recent RCRA inspection of your facility, which occurred on June 26, 28, and July 5, 1989. This inspection was conducted in order to determine your facility's compliance with State and Federal hazardous waste rules and regulations. Cas Stevens and yourself represented Vernitron Piezoelectric. Robert Finkelstein of Toxcon Engineering attended the July 5, 1989 meeting and also represented Vernitron Piezoelectric. Sherry Slone, who was present on June 28, 1989, and myself represented the Ohio EPA.

The following violations were noted during the inspection:

1. Rule 3745-52-20(C) of the OAC and 40 CFR 262.20(b), because Vernitron failed to ship their hazardous waste to a facility that is permitted to handle the waste describe on the manifest;

The silver/tetrachlorethylene waste is sent for reclamation to Eastern Smelting and Refining located in Lynn, Mass. This facility is not permitted to receive this waste since this waste is a land ban waste.

2. Rule 3745-52-33 of the OAC and 40 CFR 262.33 because Vernitron failed to offer to placard the initial transporter of hazardous waste.
3. Rule 3745-52-34(A)(3) of the OAC and 40 CFR 262.34(a)(3), because Vernitron failed to clearly mark containers with the words "Hazardous Waste";

Two containers of hazardous waste not marked with the words "Hazardous Waste" were noted in the area of the hazardous waste nickel plating solution container storage area.

4. Rule 3745-52-34(A)(2) of the OAC and 40 CFR 262.34(a)(2), because Vernitron failed to clearly mark containers with accumulation dates;

Seven containers of hazardous waste without accumulation dates were noted in the area of the hazardous waste nickel plating solution container storage area.

5. Rule 3745-55-73(A) of the OAC and 40 CFR 265.173(a), because the facility had drums containing hazardous wastes which were stored opened.

Containers of hazardous wastes were stored opened at the hazardous wastes storage area located near the receiving dock and at the satellite accumulation area outside the nickel plating room.

6. Rule 3745-66-74 of the OAC and 40 CFR 265.174, because Vernitron has failed to conduct weekly inspection of the drum storage areas for evidence of leaks or corrosion and failure to document inspections.

Documentation shown during the inspecting indicates that the drum storage areas have not been inspected since June 30, 1988.

7. Rule 3745-52-34(C)(1)(b) of the OAC and 40 CFR 262.34(c)(1)(ii), because the facility failed to have a drum containing hazardous waste at its satellite accumulation station marked with the words "Hazardous Waste".

The drum outside the nickel plating room was not properly marked as containing hazardous waste.

8. Rule 3745-52-41 of the OAC, because the facility has failed to submit an annual generator report to the State.

9. Rule 3745-65-37(A) of the OAC and 40 CFR 265.37(a) because Vernitron has failed to make the appropriate arrangements with local authorities;

Vernitron needs to familiarize local authorities with the types of wastes handled at this facility and associated hazardous of the waste.

10. Rule 3745-65-52 of the OAC and 40 CFR 265.52, because Vernitron has failed to maintain a contingency plan as required and must provide":

- a. Arrangements agreed to by local police department, fire department, hospital, contractors and state and local emergency response teams to coordinate emergency services.
- b. List of names, addresses and phone numbers of all persons qualified to act as emergency coordinator. One person must be designated as the primary emergency coordinator.
- c. A list of all emergency equipment, the location of the equipment and a physical description of each item on the list.

11. Rule 3745-65-54(A) of the OAC and 40 CFR 265.54, because the facility has failed to amend the contingency plan as the result of changes in the list of emergency coordinators and the list of emergency equipment.
12. Rule OAC 3745-65-53(A),(B) and 40 CFR 265.53, because facility has failed to forward copies of the contingency plan to local and state emergency service authorities.
13. Rule 3745-65-16 of the OAC and 40 CFR 265.16, because the facility has failed to provide an adequate personnel training program.
14. Rule 3745-65-16(B)(C) of the OAC and 40 CFR 265.16(b)(c), because the facility has failed to provide the required annual hazardous waste training for its employees.
15. Rule 3745-65-16(D)(E) of the OAC and 40 CFR 265.16(d)(e), because Vernitron has failed to maintain for each employee involved in the handling/management of hazardous waste records of their job titles, job descriptions and documented employee training records.
16. Rule 3745-58-60(C)(1-3) of the OAC and 40 CFR 266.70(c)(1-3), because the facility failed to document the amount of recoverable precious metal;
 - a. stored at the facility at the beginning of the calendar year;
 - b. generated during the calendar year;
 - c. stored at the facility at the end of the calendar year.

Please address the above generator violations and submit related documentation within 30 days of receipt of this letter.

Storage Violations:

1. Facility does not have an adequately written waste analysis plan as required by 40 CFR 265.13(b) and OAC 3745-65-13(B).
2. Facility has not maintained a written operating record as required by OAC 3745-65-73 and 40 CFR 265.73.
3. Facility has not conducted daily inspections of container storage areas for spills as required by 40 CFR 265.15(b)(4) and OAC 3745-65-15(B)(4).
4. Facility has failed to establish financial assurance for closure as required by OAC 3745-66-43 and 40 CFR 265.143.
5. Facility does not have a written inspection schedule as required by OAC 3745-65-15 and 40 CFR 265.15.

Page Number 4
August 15, 1989
Ken Kupcak

Ohio EPA
NEDO

6. Facility failed to obtain a detailed chemical and physical analyses of hazardous wastes stored at the facility, in violation of 40 CFR 265.13(a) and OAC 3745-65-13(A).
7. Facility has stored hazardous wastes on-site in excess of allowable generator time limits without first having obtained a hazardous waste installation and operator permit from the Hazardous Waste Facility Board, in violation of Ohio Revised Code Section 3734.02(F).

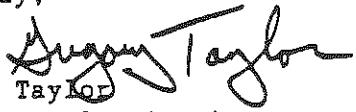
The facility is liable for compliance with applicable State and Federal Treatment, Storage and Disposal Regulations until such time as when the facility has returned to a generator status.

During the inspection a drum of Toluene dated January 4, 1989, was discovered in the drum storage area near the receiving dock this waste exceeded the permissible 90 day accumulation time of hazardous wastes for generators. A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of 40 Code of Federal Regulations (CFR) Parts 264 and 265 and Chapters 3745-54 through 3745-58, 3745-65 through 3745-69 of the Ohio Administrative Code (OAC) and the permit requirements of 40 CFR 270, OAC Chapter 3745-50 and Section 3734.02(F) of the Ohio Revised Code. Vernitron Piezoelectric must therefore submit in the amended closure plan that addresses the outside drum storage area procedures addressing the clean closure of the inside drum storage area. The appropriate copies of the amended closure plan must be submitted to Tom Crepeau by September 8, 1989.

Please note that the Land Ban Restriction Inspecting, completed as part of this inspection is being forwarded to the U.S. EPA, Region V for appropriate follow-up.

If you have any questions concerning the requests or violations cited in this letter, please feel free to contact me at (216) 425-9171.

Sincerely,


Gregory Taylor
Environmental Scientist
Division of Solid and Hazardous Waste
Management

GT/sp

Enclosures

cc: Carolyn Reiferson, DSHWM, Central Office
Debby Berg, DSHWM, NEDO



VERNITRON CORPORATION

645 MADISON AVENUE, NEW YORK, NY 10022 ☐ (212) 593-5382 ☐ FAX: (212) 754-6348

WILLIAM C. RAGALS, JR.
VICE PRESIDENT, SECRETARY
AND GENERAL COUNSEL

July 31, 1989

Port A



CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Division of Solid and Hazardous Waste Management
State of Ohio
Environmental Protection Agency
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44067

Attn: Mr. Greg Taylor

Re: Piezoelectric Division of Vernitron, Bedford, Ohio
ID #OHD052324290/02-18-0649

Gentlemen:

This is to advise you that on July 27, 1989, this Corporation sold all of the assets of its Piezoelectric Division located in Bedford, Ohio including the land and buildings located at 232 Forbes Road, Bedford, OH 44146 to MM Piezo Products, Inc., a wholly owned subsidiary of the Morgan Crucible Company plc.

Pursuant to the Asset Purchase Agreement dated July 27, 1989 between this Corporation and MM Piezo Products, Inc., this Corporation remains responsible with respect to cleanup, reporting and testing relating to environmental conditions addressed in the Report of Partial Closure Plan for Vernitron's Piezoelectric Division dated October 31, 1988 as submitted to you, and as supplemented from time to time. Accordingly, Vernitron, through its agents and employees, will continue to provide you with all analytical and other data and submit to you a revised closure plan as soon as practicable.

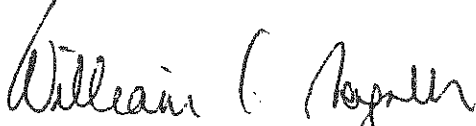
Division of Solid and Hazardous
Waste Management
State of Ohio EPA

July 28, 1989
Page Two

Toxcon Engineering Company, Inc., Vernitron's environmental consultant, will continue to be retained by Vernitron for the purpose of implementing and concluding the investigation and closure activities.

If you have any further questions in this matter, kindly communicate directly with Mr. Robert Finkelstein of Toxcon Engineering Company or with me.

Very truly yours,



William C. Ragals, Jr.
Vice President, Secretary
and General Counsel

WCR:ss

cc: Waste Management Division✓
United States Environmental Protection
Agency, Region 5
230 South Dearborn Street
Chicago, IL 60604
Attn: Rebecca Strom

RCRA Enforcement Section
Division of Solid and Hazardous Waste Management
State of Ohio Environmental Protection Agency
P.O. Box 1049
1800 Water Mark Drive
Columbus, OH 43266-1049
Attn: Carolyn J. Reiersen

Mr. Ron Roch
MM Piezo Products, Inc.

RCRA INTERIM STATUS INSPECTION FORM

Facility Name: Jennison Piezoelectric Date of Inspection 6/26/28 / 29, 7/5/29
 Address: 232 Fisher Rd. HWFB #: _____
Bedford Ma 01551-5000 USEPA ID #: 04D 052 324 290
 County: Cuyahoga Facility Phone #: (216) 232-8600
 Facility Contact: Ken Kuprak Facility Contact Phone#: _____
 Inspector(s) Name(s): Grenory Taylor Safety Equipment #: _____
Sherry Stone

STATUS

Cond. Ex. SQG ___ SQG ___ Generator ☒ Transporter ___ Treatment ___ Storage ☒ Disposal ___

ACTIVITIES

Containers ☒ Tanks ___ Surface Impoundments ___ Incineration/Thermal treatment ___
 Waste pile ___ Land treatment ___ Landfill ___ Groundwater monitoring ___
 Used oil burner ___ Hazardous waste fuel burner/blender ___

- | | | Y/N/NA | REMARK # |
|----|--|----------|----------|
| 1. | Does the facility produce "discarded materials" as defined in 3745-51-02(A)? | <u>y</u> | _____ |
| 2. | Are they : | | |
| a. | Abandoned(disposed; incinerated; accumulated, stored, or treated prior to disposal)? | <u>y</u> | _____ |
| b. | Recycled? | <u>y</u> | _____ |
| c. | Inherently waste-like?(F020, F021, F022, F023, F026, F028)? | <u>N</u> | _____ |
| 3. | If recycled or accumulated, treated or stored before recycling, is the waste: | | |
| a. | Used in a manner constituting disposal? | _____ | _____ |
| b. | Burned for energy recovery? | _____ | _____ |
| c. | Reclaimed? (Refer to Table 1 of 3745-51-02) | <u>y</u> | _____ |
| d. | Accumulated speculatively? | _____ | _____ |
| 4. | Is the material recycled by being: | | |
| a. | Used or reused as an ingredient in an industrial process to make a product without prior reclamation? | _____ | _____ |
| b. | Used as an effective substitute for commercial products? | _____ | _____ |
| c. | Returned to the original process from which it was generated without prior reclamation as a substitute for a raw material feedstock? | _____ | _____ |

		<u>Y/N/NA</u>	<u>REMARK #</u>
5.	Are LDR wastes generated? If so, complete appropriate LDR checklist.	<u>/</u>	_____
6.	Has the facility submitted a Part A to Ohio?	<u>/</u>	_____
7.	If yes, is it complete and accurate?	<u>/</u>	_____
8.	If not accurate, has a PCR been submitted? If yes, what date was the PCR submitted?	_____	_____
9.	Is the facility operating in compliance with the terms and conditions of its HWFB permit?	<u>/</u>	_____
10.	Has the facility submitted a Part B?	_____	_____
11.	Was advance notice of the inspection given? If so, how far in advance?	<u>/</u>	_____

* In process of withdrawal of permit

REMARKS. GENERAL INFORMATION.

Include list of wastes being generated/managed at the site and a brief description of site activity and waste handling.

The facility produces the following wastes:

1. Silver waste which is reclaimed by Material Processing, St. Paul Minn.
The silver waste is on ceramic products, wipes, gloves, and cans.
D008/D011
2. Tetrachlorethylene w/ Silver (F001) the silver is reclaimed by Eastern Smelting & Refining, Lynn Mass.
3. Tetrachlorethylene (F001) used in degreasing of parts.
4. Ethanol (D001)
5. Nickel Plating solutions (F006)
6. Dichloromethane-Fluorocarbon TMC - (F001)
7. Toluene (F005)
8. Waste Chromic Acid (D007/D003)

The facility does produce a lead waste which is reclaimed and exempt from regulation.

The primary activity at this facility is the manufacture of Lead Zirconate Titanate (PZT) ceramics.

CAN 3745-52 GENERATOR REQUIREMENTS (40 CFR Part 262)

	<u>Y/N/NA</u>	<u>REMARK #</u>
1. Have the wastes generated at this facility been evaluated as required under 3745-52-11 (262.11)?	<u>Y</u>	_____
2. Does this facility generate any hazardous wastes that are excluded from regulation under 3745-51-04 (261.4)?	<u>N</u>	_____
3. Does this facility have waste or waste treatment equipment that is excluded from regulation because of totally enclosed treatment [3745-65-01] (265.1(c)(9)) or via operation of an elementary neutralization unit and/or wastewater treatment unit [3745-65-01] (265.1(c)(10))?	<u>Y</u>	_____
4. Is the generator classified as a Small Quantity Generator (SQG) or conditionally exempt SQG? If so, complete appropriate checklist.	<u>N</u>	_____
5. Does the generator meet the following requirements with respect to the preparation, use and retention of the hazardous waste manifest:		
a. All hazardous wastes shipped off-site have been accompanied by a completed manifest using the most recently revised USEPA form 8700-22?	<u>Y</u>	_____
b. The manifest form used contains all the information required by 3745-52-20 (262.20) and the minimum number of copies required by 3745-52-22 (262.22)?	<u>Y</u>	_____
c. The generator has designated at least one permitted disposal facility and has/will designate an alternate facility or instructions to return waste in compliance with 3745-52-20(C)(D)(E) (262.20)?	<u>N</u>	_____
d. Prepared manifests have been signed by the generator and initial transporter in compliance with 3745-52-23(A)(1&2) (262.23)?	<u>Y</u>	_____
e. The generator has complied with manifest exception reporting requirements in 3745-52-42 (262.42(a))?	<u>NA</u>	_____
f. Signed copies of all hazardous waste manifests and any documentation required for Exception Reports are retained for at least 3 years as required by 3745-52-40 (262.40)?	<u>Y</u>	_____

- | | | Y/N/NA | REMARK # |
|----|---|-----------|----------|
| 6. | Does the generator meet the following hazardous waste pre-transport requirements: | <u>N</u> | _____ |
| a. | Prior to offering hazardous wastes for transport off-site, the waste material is packaged, labeled, and marked in accordance with applicable DOT regulations [3745-52-30, 3745-52-31, and 3745-52-32] (262.30, 262.31, 262.32)? | <u>Y</u> | _____ |
| b. | Prior to offering hazardous waste for transport off-site, each container with a capacity of 110 gallons <u>or less</u> is affixed with a completed hazardous waste label as required by 3745-52-32 (262.32)? | <u>Y</u> | _____ |
| c. | Prior to offering hazardous wastes for transport off-site, the generator meets requirements for properly placarding or offering to properly placard for the initial transporter of the waste material in compliance with 3745-52-33 (262.33)? | <u>N</u> | _____ |
| 7. | Does the generator import or export hazardous waste? | <u>N</u> | _____ |
| | If so, are the wastes handled in accordance with the requirements of 3745-52-50 (262.50)? | <u>NA</u> | _____ |
| 8. | If the generator elects to accumulate hazardous waste on-site in <u>containers or tanks for 90 days or less</u> without a hazardous waste facility installation and operation permit as provided under 3745-52-34 (262.34), are the following requirements with respect to such accumulation met: | | |
| a. | The containers or tanks are clearly marked with the words "Hazardous Waste"? | <u>N</u> | _____ |
| b. | The date that accumulation began is clearly marked on each container? | <u>N</u> | _____ |
| c. | If the waste is accumulated in containers, the generator is complying with OAC 3745-66-71 to 3745-66-74 and 3745-66-76 to 3745-66-77? Complete <u>Management of Containers</u> checklist. | <u>N</u> | _____ |

		<u>Y/N/NA</u>	<u>REMARK #</u>
d.	If the waste is accumulated in tanks, the generator is complying with OAC 3745-66-90, 3745-66-91, 3745-66-92, 3745-66-94, and 3745-66-97 to 3745-66-99 except OAC 3745-66-97(C)? Complete <u>Storage and Treatment in Tanks</u> checklist.	<u>NA</u>	_____
e.	If the generator accumulates waste at or near the point of generation which is under the control of the operator of the process generating the waste as allowed by 3745-52-34(C) are the following requirements met:		
	1. Quantities of waste accumulated do not exceed 55 gallons at any time?	<u>Y</u>	_____
	2. Quantities of acutely hazardous waste accumulated do not exceed 1 quart at any one time?	<u>NA</u>	_____
	3. If the generator is accumulating hazardous waste in accordance with e.1 or e.2, above, has the generator marked the containers with words "Hazardous Waste" or with other words identify the contents of the container and is the generator complying with OAC 3745-55-71, 3745-55-72, 3745-55-73(A), 3745-55-76, and 3745-55-77?	<u>N</u>	_____
	4. If the generator accumulates hazardous wastes in excess of the amounts listed in either e.1 or e.2, above, did the generator comply with 3745-52-34(A) (262.34(a)) within three (3) days and mark the container holding the excess accumulation with the date the excess accumulation began accumulating?	<u>NA</u>	_____
9.	Has the genertor accumulated hazardous wastes in excess of ninety (90) days?	<u>Y</u>	_____
10.	Has the generator been granted an extension by the Director/ Regional Administrator for accumulation in excess of ninety (90) days?	<u>N</u>	_____
11.	Has the generator treated, stored, disposed of, transported or offered for transportation hazardous waste without having obtained a USEPA identification number from the Administrator as required under 3745-52-12 (262.12)?	<u>N</u>	_____

		<u>Y/N/NA</u>	<u>REMARK #</u>
12.	Does the generator provide a Personnel Training Program in compliance with 3745-65-16(A)(B)(C) (265.16) including instruction in safe equipment operation and emergency procedures, training new employees within 6 months and providing an annual training program refresher course? [3745-52-34(A)(4)] (262.34)	<u>N</u>	_____
13.	Does the generator keep all of the records required by 3745-65-16(D)(E) (265.16) including written job titles, job descriptions and documented employee training records? [3745-52-34(A)(4)] (262.34)	<u>N</u>	_____
14.	Has the generator filed annual reports on or before March 1st of the next calendar year as required by 3745-52-41?	<u>N</u>	_____
15.	Does the generator comply with the applicable requirements for owners or operators of hazardous waste facilities? Complete " <u>Preparedness and Prevention</u> " and " <u>Contingency Plan and Emergency Procedures</u> " checklists.	<u>N</u>	_____

REMARKS, GENERATOR REQUIREMENTS

OAC 3745-65-et seq. GENERAL FACILITY STANDARDS (40 CFR Part 265. SUBPART 8)

		<u>Y/N/NA</u>	<u>REMARK #</u>
1.	Does the owner/operator (o/o) have a detailed chemical and physical analysis of the waste material containing all of the information which must be known to properly treat or store the waste as required by 3745-65-13(A)(1) (265.13(a))?	<u>Y</u>	_____
2.	Does o/o have a written waste analysis plan which describes analytical parameters, test methods, sampling methods, testing frequency and responses to any process changes that may affect the character of the waste. [3745-65-13(B)] (265.13(b))	<u>N</u>	_____
3.	a. Would physical contact with the waste structures or equipment injure unknowing/unauthorized persons or livestock entering the facility? [3745-65-14(A)(1)] (265.14(a)(1))	<u>N</u>	_____
	b. Would disturbance of the waste cause a violation of the hazardous waste regulations? [3745-65-14(A)(2)] (265.14(a)(2))	<u>N</u>	_____
IF BOTH 3A and 3B ARE NO, MARK QUESTIONS 4 AND 5 NOT APPLICABLE.			
4.	Does the facility have -		
	a. A 24-hour surveillance system, or	<u>Y</u>	_____
	b. An artificial or natural barrier <u>and</u> a means to control entry at all times [3745-65-14(B)(2)(a and b)] (265.14(b)(2))	<u>Y</u>	_____
5.	Does the facility have a sign "Danger-Unauthorized Personnel Keep Out" at each entrance to the active portion of the facility and at other locations as necessary. [3745-65-14(C)](265.14(c))	<u>Y</u>	_____
6.	a. Has the o/o developed and followed a comprehensive, written inspection plan and documented the inspections, malfunctions and any remedial actions taken in an operating record log which is kept for at least three years. [3745-65-15] (265.15)	<u>N</u>	_____

[illegible]

- N _____
- n _____
- o _____
- y _____
- y _____
- y _____
- y _____
- na _____

OAC 3745-65 PREPAREDNESS AND PREVENTION (40 CFR PART 265 SUBPART C)

	<u>Y/N/NA</u>	<u>REMARK #</u>
1. Is the facility operated to minimize the possibility of fire, explosion, or non-planned release of hazardous waste? [3745-65-31] (265.31)	<u>Y</u>	_____
2. Has there been a fire, explosion or non-planned release of waste at the facility?	<u>N</u>	_____
3. If required due to actual hazards associated with the waste, does the facility have the following equipment: [3745-65-32(A)(B)(C)(D)] (265.32)		
a. Internal alarm system?	<u>Y</u>	_____
b. Access to telephone, radio or other device for summoning emergency assistance?	<u>Y</u>	_____
c. Portable fire control equipment?	<u>Y</u>	_____
d. Water of adequate volume and pressure via hoses, sprinkler, foamers or sprayers?	<u>Y</u>	_____
4. Is all required spill control and decontamination equipment, fire and communications equipment tested and maintained as necessary? [3745-65-33] (265.33)	<u>Y</u>	<u>Annual</u>
5. If required due to the actual hazards associated with the waste, do personnel have immediate access to an emergency communication device during times when hazardous waste is being physically handled? [3745-65-34] (265.34)	<u>Y</u>	_____
6. If required due to the actual hazards associated with the waste, is adequate aisle space to allow unobstructed movement of emergency or spill control equipment maintained? [3745-65-35] (265.35)	<u>Y</u>	_____
7. If required due to the actual hazards associated with the waste, has the facility attempted to make appropriate arrangements with local authorities to familiarize them with the possible hazards and the facility layout? [3745-65-37(A)] (265.37(a))	<u>N</u>	_____

Y/N/NA REMARK #

8. Where state or local emergency service authorities have declined to enter into any proposed special arrangements or agreements, has the refusal been documented. [3745-65-37(B)] (265.37(b))

NF _____

OAC 3745-65 CONTINGENCY PLAN AND EMERGENCY PROCEDURES (40 CFR PART 265 SUBPART D)

Y/N/NA REMARK #

1. Does the o/o have a written Contingency Plan designed to minimize hazards from fire, explosions or unplanned releases of hazardous wastes which contains the following components for the facility? [3745-65-52(A)(B)(C)(D)(E)] (265.52):
 - a. Actions to be taken by personnel in the event of an emergency incident? Y _____
 - b. Arrangements or agreements with local or state emergency authorities? Y _____
 - c. Names, addresses and telephone numbers of all persons qualified to act as emergency coordinator? N _____
 - d. A list of all emergency equipment including location, physical description and outline of capabilities? N _____
 - e. If required due to the actual hazards associated with the waste handled, an evacuation plan for facility personnel? [3745-65-52(F)] (265.51(f))? Y _____
2. Is a copy of the Contingency Plan and any plan revisions maintained on-site and has been submitted to all local and state emergency service authorities that might be required to participate in the execution of the plan? [3745-65-53(A)(B)] (265.53) N _____
3. Is the plan revised in response to rule changes, facility, equipment and personnel changes or failure of the plan? [3745-65-54] (265.54) N _____
4. Is an emergency coordinator who is familiar with all aspects of site operation and emergency procedures who has the authority to implement all aspects of the Contingency Plan designated at all times (on-site or on-call)? [3745-65-56(A-J)] (265.56) Y _____
5. If an emergency situation has occurred, has the emergency coordinator implemented all or part of the Contingency Plan and taken all of the actions and made all of the notifications deemed necessary under 3745-65-56(A-J). (265.56(a-j)) NA _____

OAC 3745-65 MANIFEST SYSTEM/RECORDS/REPORTING (40 CFR PART 265, SUBPART E)

NOTE: THE FOLLOWING REQ~

QUIREMENTS ARE APPLICABLE TO BOTH ON-SITE AND OFF-SITE TREATMENT, STORAGE AND DISPOSAL FACILITIES.

		<u>Y/N/NA</u>	<u>REMARK #</u>
1.	Does the o/o maintain a written operating record at the facility as required by 3745-65-73(A) (265.73) which contains the following information:		
a.	Description and quantity of each hazardous waste treated, stored or disposed of within the facility and the date and method pertinent to such treatment, storage or disposal? [3745-65-73(B)(1)] (265.73(b)(1)).	<u>N</u>	_____
b.	Common name, EPA Hazardous Waste Identification Number and physical state (solid, liquid, gas) of the waste?	<u>N</u>	_____
c.	The estimated (or actual) weight, volume or density of the waste material?	<u>N</u>	_____
d.	A description of the method(s) used to treat, store or dispose of the waste using the EPA handling codes listed in Table 2 of OAC 3745-65-73(B)(2) (Part 265, Appendix I, Table 2)	<u>N</u>	_____
e.	The present physical location of each hazardous waste within the facility?	<u>N</u>	_____
f.	Records of incidents which require implementation of the Contingency Plan?	<u>N</u>	_____
g.	FOR DISPOSAL FACILITIES, the location and quantity of each hazardous waste recorded on a map of the facility and cross-references to any pertinent manifest document numbers? [3745-65-73(B)(2)] (265.73(b)(2))	<u>NA</u>	_____
h.	Records of any waste analyses and trial tests required to be performed?	<u>N</u>	_____
i.	Records of the inspections required under 3745-65-15 (265.15) (General Inspection Requirements)?	<u>N</u>	_____
j.	Records of any monitoring, testing, or analytical data required under other Subparts as referenced by 3745-65-73(B)(6);(265.73(b)(6))?	<u>N</u>	_____

	Y/N/NA	REMARK #
k. Records of closure cost estimates and post-closure (DISPOSAL ONLY) cost estimates required under OAC 3745-66 (Part 265 Subpart G)?	<u>N</u>	_____
2. Has the o/c submitted an annual (biennial) Treatment-Storage-Disposal Operating Report (by March 1) containing all of the operating information required under 3745-65-75 (265.75)?	<u>Y</u>	_____
NOTE: THE FOLLOWING REQUIREMENTS ARE APPLICABLE ONLY TO OFF-SITE TSDS.		
3. Are manifests received by the facility signed and dated? Is one copy given to the transporter, one copy sent to the generator within 30 days and one copy kept for at least 3 years? [3745-65-71(A)] (265.71)	<u>Y</u>	_____
a. If shipping papers are used in lieu of manifests (bulk shipments, etc.), are the same requirements met [3745-65-71(B)] (265.71(b))?		_____
b. Are any significant discrepancies in the manifest, as defined in 3745-65-72(A) (265.72(a)) noted in writing on the manifest document.		_____
4. Have any manifest discrepancies been reconciled within 15 days as required by 3745-65-72(B) (265.72(b)) or has the o/c submitted the required information to the Director/Regional Administrator?		_____
5. If the facility has accepted any unmanifested hazardous wastes from off-site sources for treatment, storage, or disposal, has an unmanifested waste report containing all the information required by 3745-65-76(A) (265.76) been submitted to the Director/Regional Administrator within 15 days?		_____

OAC 3745-66 CLOSURE AND POST-CLOSURE (40 CFR PART 265, SUBPART G)

		<u>Y/N/NA</u>	<u>REMARK #</u>
1.	Is a written closure plan on file at the facility which contains the following elements: [3745-66-12] (265.112)?	<u>Y</u>	_____
a.	A description of how each hazardous waste management unit will be closed in accordance with 265.11.	<u>Y</u>	_____
b.	A description of how final closure will meet the requirements of 3745-66-11 (265.111).	<u>Y</u>	_____
c.	An estimate of the maximum amount of hazardous waste in inventory.	<u>Y</u>	_____
d.	A description of steps taken to remove or decontaminate facility equipment containment systems, structures, soils, and all hazardous waste residues.	<u>Y</u>	_____
e.	The year closure is expected to begin and a schedule for the various phases of closure.	<u>Y</u>	_____
f.	A description of other activities necessary to ensure closure with the performance standards including ground water monitoring, leachate collection, and run-off control.	<u>N</u>	_____
2.	Has the closure plan (and post-closure plan, if applicable) been amended 60 days prior to any changes in facility design, processes, or closure dates or 60 days after an unexpected event occurs which effects the closure plan? [3745-66-12(C)] (265.112(c))	<u>N</u>	_____
3.	Has the closure plan (and post-closure plan, if applicable) for surface impoundment, waste pile, land treatment or landfill units been submitted to the Director/Regional Administrator 180 days prior to beginning the closure process or 45 days if only have tanks, container storage or incinerator? [3745-66-12(D)] (265.112(d))	<u>NA</u>	_____
4.	Has the closure plan (and post-closure plan, if applicable) for tank, containers storage or incinerator units been submitted to the Director/Regional Administrator 45 days prior to beginning the closure process? [3745-66-12(D) (265.112(d))	<u>Y</u>	_____

- 28 -

The facility began closure activities in August of 1988. High levels of contamination has required additional sampling of the outside drum storage area.

		<u>Y/N/NA</u>	<u>REMARK #</u>
5.	Within 90 days of receipt of the final volume of waste or Director's plan approval, if that is later, was all hazardous waste treated, removed, or disposed in accordance with the approved plan? [3745-66-13(A)] (265.113(a))	<u>NA</u>	_____
6.	Was closure completed in accordance with the approved plan within 180 days after receipt of final volume of waste or approval of the plan, if that is later? [3745-66-13(B)] (265.113(b))	<u>N</u>	_____
7.	Did the owner/operator submit to the Director/Regional Administrator, within sixty (60) days after completion of closure, certification by both the owner/operator and an independent registered professional engineer that the facility has been closed in accordance with the approved closure plan? [3745-66-15] (265.115)	<u>N/A</u>	_____
8.	What permitted units at the facility have been closed in accordance with an approved Closure Plan?	<u>N/A</u>	_____
9.	If closure was partial, list the regulated units which remain in use at the facility: _____ _____		
10.	If required, has the facility prepared a written post-closure plan? [3745-66-18] (265.118)	<u>NA</u>	_____
11.	Does the post-closure plan include:		
a.	A description of proposed ground water monitoring?	<u>NA</u>	_____
b.	A description of planned maintenance activities?	<u>NA</u>	_____
c.	The name, address and phone number of person/office to contact during the post-closure period?	<u>NA</u>	_____
12.	For disposal facilities, has the owner/operator submitted to local land authorities and the Director a survey plat within 60 days after certification of closure? [3745-66-19] (265.119)	<u>N/A</u>	_____

Y/N/NA REMARK #

13.~96Has the owner of the property on which a disposal unit is located recorded on the deed that:

- a. The land has been used to manage hazardous waste and the type, quantity and location of waste?
- b. Land use is restricted pursuant to 3745-66-17?
 [3745-66-10] (265.119)

NA _____
1 _____

OAC 3745-66 USE AND MANAGEMENT OF CONTAINERS (40 CFR PART 265, SUBPART I)

		<u>Y/N/NA</u>	<u>REMARK #</u>
1.	Are hazardous wastes stored in containers which are:		
a.	Closed [3745-66-73(A)] (265.173)?	<u>N</u>	_____
b.	In good condition [3745-66-71] (265.171)?	<u>Y</u>	_____
c.	Compatible with the wastes stored in them [3745-66-72] (265.172)?	<u>Y</u>	_____
2.	Are containers stored closed except when it is necessary to add or remove wastes? [3745-66-73(A)] (265.173(a))	<u>N</u>	_____
3.	Are hazardous waste containers stored, handled and opened in a manner which prevents container rupture or leakage? [3745-66-73(B)] (265.173(b))	<u>Y</u>	_____
4.	Is the area where containers stored inspected for evidence of leaks or corrosion at least weekly? [3745-66-74] (265.174) [documentation of inspections required under 3745-65-15 for TSDs]	<u>N</u>	<u>last Time</u> <u>6/30/88</u>
5.	Are containers holding ignitable or reactive waste located at least 50 feet (15 meters) from the facility's property line? [3745-66-76] (265.176)	<u>Y</u>	_____
6.	Are containers holding hazardous wastes stored separate from other materials which may interact with the waste in a hazardous manner? [3745-66-77(C)] (265.177(c))	<u>Y</u>	_____

RCRA LAND DISPOSAL RESTRICTION INSPECTION

Facility: Vernitron Piezoelectric
 U.S. EPA I.D. No.: OH 052 324 290
 Street: 232 Forbes Rd
 City: Bedford State: Ohio Zip Code: 44146-5478
 Telephone: (216) 232-8600

Operator: _____
 Street: _____
 City: _____ State: _____ Zip Code: _____
 Telephone: _____

Owner: _____
 Street: _____
 City: _____ State: _____ Zip Code: _____
 Telephone: _____

Inspection Date: 7/1/89 Time: 9:30 - 3:00 Weather Conditions: Pt. Cloudy
 * June 26, 28 + July 5 1989

	Name	Affiliation	Telephone
Inspectors:	<u>Gregory Taylor</u>	<u>Ohio EPA</u>	<u>(216) 425-9171</u>
	<u>Sherry Stone</u>	<u>Ohio EPA</u>	<u>(216) 425-9171</u>

Facility Representatives: Ken Kupcak, Cas Stevens

	RCRA Status	F-Solvent	LDR Status California List	First Third
Generator	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
Transporter	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Treater	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Storer *	<u> </u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
Disposer	<u> </u>	<u> </u>	<u> </u>	<u> </u>

* 290 day

INSPECTION SUMMARY

RCRA LAND DISPOSAL RESTRICTION INSPECTION

APPLICABILITY CHECKLIST

Does the facility handle the following wastes?

	Gen.	Treat	Store*	Disp.	Trans.
A. <u>F-Solvent Wastes</u>					
1. F001	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. F002	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. F003	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. F004	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. F005	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: Use Appendix A to determine whether the facility is misclassifying any of its wastes.

2 90 day storage

B. California List Wastes

1. Liquid hazardous waste (including free liquids associated with any solid or sludge) that contains the following metals at concentrations greater than or equal to those specified

	Gen.	Treat	Store*	Disp.	Trans.
Arsenic 500 mg/L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cadmium 100 mg/L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chromium VI 500 mg/L	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead 500 mg/L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mercury 20 mg/L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nickel 134 mg/L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Selenium 100 mg/L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thallium 130 mg/L	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	APP				
	Gen.	Treat	Store	Disp.	Trans.
K047°	_____	_____	_____	_____	_____
K048°	_____	_____	_____	_____	_____
K049°	_____	_____	_____	_____	_____
K050°	_____	_____	_____	_____	_____
K051°	_____	_____	_____	_____	_____
K052°	_____	_____	_____	_____	_____
K060°	_____	_____	_____	_____	_____
K061°	_____	_____	_____	_____	_____
K062°	_____	_____	_____	_____	_____
K069°	_____	_____	_____	_____	_____
K071°	_____	_____	_____	_____	_____
K073°	_____	_____	_____	_____	_____
K083°	_____	_____	_____	_____	_____
K084	_____	_____	_____	_____	_____
K085	_____	_____	_____	_____	_____
K086°	_____	_____	_____	_____	_____
K087°	_____	_____	_____	_____	_____
K099°	_____	_____	_____	_____	_____
K100°	_____	_____	_____	_____	_____
K101°	_____	_____	_____	_____	_____
K102°	_____	_____	_____	_____	_____
K103°	_____	_____	_____	_____	_____
K104°	_____	_____	_____	_____	_____
K106°	_____	_____	_____	_____	_____
P001	_____	_____	_____	_____	_____
P004	_____	_____	_____	_____	_____
P005	_____	_____	_____	_____	_____
P010	_____	_____	_____	_____	_____
P011	_____	_____	_____	_____	_____
P012	_____	_____	_____	_____	_____
P015	_____	_____	_____	_____	_____
P016	_____	_____	_____	_____	_____
P018	_____	_____	_____	_____	_____

	APP				
	Gen.	Treat	Store	Disp.	Trans.
P020	_____	_____	_____	_____	_____
P030	_____	_____	_____	_____	_____
P036	_____	_____	_____	_____	_____
P037	_____	_____	_____	_____	_____
P039	_____	_____	_____	_____	_____
P041	_____	_____	_____	_____	_____
P048	_____	_____	_____	_____	_____
P050	_____	_____	_____	_____	_____
P058	_____	_____	_____	_____	_____
P059	_____	_____	_____	_____	_____
P063	_____	_____	_____	_____	_____
P068	_____	_____	_____	_____	_____
P069	_____	_____	_____	_____	_____
P070	_____	_____	_____	_____	_____
P071	_____	_____	_____	_____	_____
P081	_____	_____	_____	_____	_____
P082	_____	_____	_____	_____	_____
P084	_____	_____	_____	_____	_____
P087	_____	_____	_____	_____	_____
P089	_____	_____	_____	_____	_____
P092	_____	_____	_____	_____	_____
P094	_____	_____	_____	_____	_____
P097	_____	_____	_____	_____	_____
P102	_____	_____	_____	_____	_____
P105	_____	_____	_____	_____	_____
P108	_____	_____	_____	_____	_____
P110	_____	_____	_____	_____	_____
P115	_____	_____	_____	_____	_____
P120	_____	_____	_____	_____	_____
P122	_____	_____	_____	_____	_____
P123	_____	_____	_____	_____	_____
U007	_____	_____	_____	_____	_____
U009	_____	_____	_____	_____	_____

	APP				
	Gen.	Treat	Store	Disp.	Trans.
U010	_____	_____	_____	_____	_____
U012	_____	_____	_____	_____	_____
U016	_____	_____	_____	_____	_____
U018	_____	_____	_____	_____	_____
U019	_____	_____	_____	_____	_____
U022	_____	_____	_____	_____	_____
U029	_____	_____	_____	_____	_____
U031	_____	_____	_____	_____	_____
U036	_____	_____	_____	_____	_____
U037	_____	_____	_____	_____	_____
U041	_____	_____	_____	_____	_____
U043	_____	_____	_____	_____	_____
U044	_____	_____	_____	_____	_____
U046	_____	_____	_____	_____	_____
U050	_____	_____	_____	_____	_____
U051	_____	_____	_____	_____	_____
U053	_____	_____	_____	_____	_____
U061	_____	_____	_____	_____	_____
U063	_____	_____	_____	_____	_____
U064	_____	_____	_____	_____	_____
U066	_____	_____	_____	_____	_____
U067	_____	_____	_____	_____	_____
U074	_____	_____	_____	_____	_____
U077	_____	_____	_____	_____	_____
U078	_____	_____	_____	_____	_____
U086	_____	_____	_____	_____	_____
U089	_____	_____	_____	_____	_____
U103	_____	_____	_____	_____	_____
U105	_____	_____	_____	_____	_____
U108	_____	_____	_____	_____	_____
U115	_____	_____	_____	_____	_____
U122	_____	_____	_____	_____	_____
U124	_____	_____	_____	_____	_____

	Gen.	Treat	Store	Disp.	Trans.
U129	_____	_____	_____	_____	_____
U130	_____	_____	_____	_____	_____
U133	_____	_____	_____	_____	_____
U134	_____	_____	_____	_____	_____
U137	_____	_____	_____	_____	_____
U151	_____	_____	_____	_____	_____
U154	_____	_____	_____	_____	_____
U155	_____	_____	_____	_____	_____
U157	_____	_____	_____	_____	_____
U158	_____	_____	_____	_____	_____
U159	_____	_____	_____	_____	_____
U171	_____	_____	_____	_____	_____
U177	_____	_____	_____	_____	_____
U180	_____	_____	_____	_____	_____
U185	_____	_____	_____	_____	_____
U188	_____	_____	_____	_____	_____
U192	_____	_____	_____	_____	_____
U200	_____	_____	_____	_____	_____
U209	_____	_____	_____	_____	_____
U210	_____	_____	_____	_____	_____
U211	_____	_____	_____	_____	_____
U219	_____	_____	_____	_____	_____
U220	_____	_____	_____	_____	_____
U221	_____	_____	_____	_____	_____
U223	_____	_____	_____	_____	_____
U226	_____	_____	_____	_____	_____
U227	_____	_____	_____	_____	_____
U228	_____	_____	_____	_____	_____
U237	_____	_____	_____	_____	_____
U238	_____	_____	_____	_____	_____
U248	_____	_____	_____	_____	_____
U249	_____	_____	_____	_____	_____

RCRA LAND DISPOSAL RESTRICTION INSPECTION

GENERATOR CHECKLIST

GENERATOR REQUIREMENTS

A. BDAT Treatability Group - Treatment Standards Identification

1. F-Solvent Wastes: Does the generator correctly determine the appropriate treatability group of the waste?

☒ Yes ☐ No ☐ NA

If yes, check the appropriate treatability group.

- ☐ Wastewaters containing solvents (less than or equal to 1% TOC by weight)
☐ Pharmaceutical wastewater containing
☒ spent methylene chloride
☒ All other spent solvent wastes

2. California List Wastes: Does the generator correctly determine the appropriate treatment standard of the waste?

- a. For liquid hazardous waste that contains PCBs at concentrations greater than or equal to 50 but less 500 ppm, is the treatment in accordance with existing TSCA thermal treatment regulations for burning in high efficiency boilers (40 CFR 761.60) or incineration (40 CFR 761.70)?

☐ Yes ☐ No ☐ NA

If yes, specify the method: _____

- b. For liquid hazardous waste that contains PCBs at concentrations greater than or equal to 500 ppm, is the waste incinerated or disposed of by other approved alternate methods (40 CFR 761.60 (e))?

☐ Yes ☐ No ☐ NA

If yes, specify the method and state whether the facility has submitted a written request to the Regional Administrator or Assistant Administrator for an exemption from the incineration requirement:

3. First Third Wastes: Does the generator correctly determine the appropriate treatability group of the waste?

☒ Yes ☐ No ☐ NA

If yes, check the appropriate treatability group.

☐ Wastewater (less than 1% TOC by weight and less than 1% filterable solids)
☒ Nonwastewaters

List the waste code and check the correct treatment standard group.

Waste Code	Wastewater	Nonwastewater
<u>F006</u>		<input checked="" type="checkbox"/>

B. Waste Analysis

1. F-Solvent Wastes

- a. Does the generator determine whether the F-solvent waste exceeds treatment standards?

☒ Yes ☐ No ☐ NA

How was this determination made?

- Knowledge of waste

☒ Yes ☐ No

If yes, is any supporting data available for review? Describe how this is adequate. MSDS, annual sample analysis

- TCLP

☐ Yes ☐ No

If yes, provide the date of last test, the frequency of testing, and note any problems. Attach test results.

- b. Does the F-solvent waste exceed applicable treatability group treatment standards upon generation [268.7(a)(2)]?

☒ Yes ☐ No ☐ NA

If yes, specify the waste stream:

Pestic w/ mineral oil/water

- c. Does the generator dilute the F-solvent waste as a substitute for adequate treatment [268.3]?

Pestic w/ solvent

☐ Yes ☒ No ☐ NA

- d. How does the generator test F-solvent waste when a process or waste stream changes?

2. California List Wastes

- a. Does the generator determine whether the waste is a liquid according to the Paint Filter Liquids Test (PFLT method 9095) as described by SW-846?

☐ Yes ☒ No ☐ NA

- b. If the waste is determined to be a liquid according to PFLT, is an absorbent added to the waste?

☐ Yes ☐ No ☐ NA

What type of absorbent is used? _____

Check the types of waste to which absorbent is added.

☐ Liquid hazardous waste having a pH less than or equal to 2

☐ Liquid hazardous waste containing metals

☐ Liquid hazardous waste containing free cyanides

- c. Does the generator determine whether the concentration levels (not extract or filtrate) in the waste equal or exceed the prohibition levels or whether the waste has a pH of less than or equal to 2.0 based on:

- Knowledge of wastes

☐ Yes ☐ No ☐ NA

If yes, is any supporting data available for review? Describe how this is adequate. _____

- Testing ☐ Yes ☐ No ☐ NA

If yes, list test method used: _____

- d. Does the generator determine if concentration levels in the PFLT filtrate exceed cyanide and metals concentration levels?

☐ Yes ☐ No ☐ NA

- If yes, list test method used and constituent and concentration levels that exceeded prohibition levels: _____

- e. Does the generator dilute the waste as a substitute for adequate treatment [268.3]?

☐ Yes ☒ No ☐ NA

3. First Third Wastes:

- a. Does the generator correctly determine the appropriate treatment standard of the waste?

☒ Yes ☐ No ☐ NA

Note: The treatment standards for first third wastes are given in Appendix D.

- b. Does the generator determine whether the First Third waste exceeds treatment standards upon generation?

☒ Yes ☐ No ☐ Soft hammer

If yes, specify the waste stream: Plating wastes

How was this determination made?

- Knowledge of waste

☐ Yes ☐ No

If yes, is any supporting data available for review? Describe how this is adequate. _____

- TCLP

_____ Yes _____ No _____ NA

- Total Constituent Analysis

_____ Yes _____ No _____ NA

Provide the date of last test, the frequency of testing, and note any problems. Attach test results.

- c. Does the generator dilute the waste as a substitute for adequate treatment [268.3]?

_____ Yes _____ No _____ NA

- d. How does the generator test the waste when a process or waste stream changes?

C. Management

1. On-Site Management

Is restrict waste or waste that exceeds the treatment standards treated, stored, or disposed on-site?

✓ Yes* _____ No* *< 90 days*

If yes, the TSD Checklist must be completed.

2. Off-Site Management

- a. Does the generator ship any waste that exceeds the treatment standards to an off-site treatment or storage facility?

✓ Yes _____ No

- b. Does the generator provide notification to the treatment or storage facility [268.7(a)(1)]?

✓ Yes _____ No

- c. Does notification contain the following?

EPA Hazardous waste number(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Applicable treatment standards	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Manifest number	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Waste analysis data, if available	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Identify off-site treatment or storage facilities: GSX Chemical Services of Ohio
Cleveland; Liberty Solvents & Chemicals, Twinsburg; Chem-Chem, Cleveland.

- d. Does the generator ship any waste that meets the treatment standards to an off-site disposal facility?

☐ Yes ☒ No

- e. Does the generator provide notification and certification to the disposal facility [268.7(a)(2)]?

☐ Yes ☐ No

- f. Does notification contain the following?

EPA Hazardous waste number(s)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Applicable treatment standards	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Manifest number	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Waste analysis data, if available	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Certification that the waste meets treatment standards	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Identify off-site land disposal facilities: _____

- g. Is the waste subject to a nationwide variance, case by case extension (268.5), or petition (268.6)?

☐ Yes ☐ No ☒ NA

- h. If yes, does the generator provide notification to the off-site receiving facility that the waste is not prohibited from land disposal [268.7(a)(3)]?

☐ Yes ☐ No

i. If yes, does the notification contain the following information?

EPA Hazardous waste number	_____ Yes	_____ No
The corresponding treatment standards and all applicable prohibitions	_____ Yes	_____ No
Manifest number	_____ Yes	_____ No
Waste analysis data, if available	_____ Yes	_____ No
Date the waste is subject to the prohibitions	_____ Yes	_____ No

j. Does the generator retain copies of all notices and certifications for a period of 5 years?

_____ Yes _____ No

D. Demonstration and Certification -- "Soft Hammer" Wastes

NA

a. Has the generator attempted to locate and contract with treatment and recovery facilities that provide treatment that yields the greatest environmental benefit [268.8(a)(1)]?

_____ Yes _____ No

b. Has the generator submitted to the Regional Administration a demonstration and certification containing the following information to document its efforts to locate practically available treatment:

A list of facilities and facility officials contacted?

_____ Yes _____ No

Addresses

_____ Yes _____ No

Telephone Numbers

_____ Yes _____ No

Contact dates

_____ Yes _____ No

Attach a copy of the demonstration and certification

c. If the generator has determined that there is no practically available treatment for its wastes, has it sent documentation to EPA demonstrating why it was not able to obtain treatment or recovery for the waste?

_____ Yes _____ No

If yes, attach a copy of written discussion.

- d. Does the generator ship his waste off-site for treatment?

_____ Yes _____ No

Describe the type of treatment and treatment facilities _____

- e. Did the generator send a copy of its demonstration and certification to the receiving facility with the first shipment of waste?

_____ Yes _____ No

- f. Does the generator provide certification with each subsequent shipment of wastes?

_____ Yes _____ No

- g. Does the generator provide the following notification to the receiving facility with each shipment of waste?

(i) EPA Hazardous waste number _____ Yes _____ No

(ii) Manifest number _____ Yes _____ No

(iii) Waste analysis data,
if available _____ Yes _____ No

- h. Does the generator retain copies of all notices, demonstrations, and certifications for a period of 5 years?

_____ Yes _____ No

E. Treatment Using RCRA 264/265 Exempt Units or Processes *NA*
(i.e., boilers, furnaces, distillation units, wastewater treatment tanks, elementary neutralization, etc.)

Are treatment residuals generated from units or processes exempt under RCRA 264/265?

_____ Yes _____ No

If yes, list types of waste treatment units and processes:

RCRA LAND DISPOSAL RESTRICTION INSPECTION

TRANSPORTER CHECKLIST

TRANSPORTER REQUIREMENTS *NA*

- A. Does the transporter accumulate waste for more than 10 days [268.50(A)(3)]?

_____ Yes _____ No

If yes, check the appropriate regulatory status:

_____ Interim status for storage

_____ RCRA permit for storage

If no, describe inventory controls to ensure that wastes are not stored for more than 10 days: _____

- B. Does the transporter mix, combine, or recontainerize wastes?

_____ Yes _____ No

- C. Is the waste treated in an exempt treatment process on-site?

_____ Yes _____ No

RCRA LAND DISPOSAL RESTRICTION INSPECTION

TSD CHECKLIST

TSD REQUIREMENTS

A. General Facility Standards

1. Does the waste analysis plan cover Part 268 requirements [264.13 or 265.13]?
 - o F-solvent ☐ Yes ☐ No ☐ NA
 - o California List ☐ Yes ☐ No ☐ NA
 - o First Third ☐ Yes ☐ No ☐ NA
2. Does the facility obtain representative chemical and physical analyses of wastes and residues?
☐ Yes ☐ No
 - a. What date was the waste analysis plan last revised? _____
 - b. Are analyses conducted on-site or off-site?
☐ On-site ☐ Off-site
Identify off-site lab: _____

 - c. Is F-solvent waste analyzed using TCLP?
☐ Yes ☐ No ☐ NA
 - d. Is First Third waste analyzed using the analytical method that is appropriate for the objective of the specified BDAT (i.e., total constituent analysis for destruction technologies and TCLP for stabilization/fixation technologies)?
☐ Yes ☐ No ☐ NA

Note: The appropriate analytical methods (TCLP or total constituent) for first third wastes with specified treatment standards are given in Appendix D.

- e. Describe the frequency of sampling: _____

3. Are the operating records, including analyses and quantities, complete [264.73/265.73]?

_____ Yes _____ No

B. Storage (268.50)

1. Are restricted wastes stored on-site?

_____ Yes _____ No

If no, go to C, Treatment.

2. If yes, check the appropriate method.

_____ Tanks
_____ Containers

3. Are all containers clearly marked to identify the contents and date(s) entering storage?

_____ Yes _____ No _____ NA

4. Do operating records track the location, quantity of the wastes, and dates that the wastes enter and leave storage?

_____ Yes _____ No

5. Do operating records agree with container labeling?

_____ Yes _____ No _____ NA

6. Do operating records contain copies of the notice, certification, and demonstration (if applicable) from the generator for the past 5 years?

_____ Yes _____ No

7. Have wastes been stored for more than 1 year since the applicable LDR regulations went into effect?

_____ Yes _____ No _____ NA

If yes, can the facility show that such accumulation is necessary to facilitate proper recovery, treatment, or disposal?

_____ Yes _____ No

If yes, state how: _____

8. Have tanks been emptied at least once per year since the applicable LDR regulations went into effect?

_____ Yes _____ No _____ NA

If yes, do the operating records show that the volume of waste removed from tanks annually equals or is more than the tank volume?

_____ Yes _____ No

9. Are all tanks clearly marked with a description of the contents, the quantity of wastes received, and date(s) entering storage, or is such information recorded and maintained in the operating record?

_____ Yes _____ No _____ NA

C. Treatment

1. Does the facility treat restricted wastes other than in surface impoundments?

_____ Yes _____ No

If no, go to D, Treatment in Surface Impoundments.

2. Describe the treatment processes:

3. Does the facility, in accordance with an acceptable waste analysis plan, determine whether the residue or residue extract (for treatment standards expressed as concentrations in the waste extract) from all treatment processes is less than treatment standards [268.7(b)]?

☐ Yes ☐ No

4. Is dilution used as a substitute for treatment?

☐ Yes ☐ No

6. Are notifications, demonstration, and certification (if applicable) prepared by the generators kept in the facility's operating record?

☐ Yes ☐ No

7. Does the facility ship any waste or treatment residue that meets the treatment standards to an off-site disposal facility?

☐ Yes ☐ No ☐ NA

If yes, does the treatment facility provide notification and certification to the disposal facility?

☐ Yes ☐ No

If yes, does notification contain the following?

EPA Hazardous waste number(s)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Applicable treatment standards	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Manifest number	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Waste analysis data, if available	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Certification that the waste meets the treatment standards	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Identify off-site disposal facilities:

8. Does the facility ship any "soft hammer" waste to an off-site disposal facility?

☐ Yes ☐ No ☐ NA

If yes, does the treatment facility send a copy of the generator's demonstration (if applicable) and certification to the disposal facility?

☐ Yes ☐ No

D. Treatment in Surface Impoundments

1. Are restricted wastes placed in surface impoundments for treatment?

☐ Yes ☐ No

If no, go to E, Land Disposal.

2. If yes, did the facility submit to the Agency the waste analysis plan and certification of compliance with minimum technology and ground-water monitoring requirements?

☐ Yes ☐ No

3. If the minimum technology requirements have not been met, has a waiver been granted for that unit?

☐ Yes ☐ No ☐ NA

4. Are representative samples of the sludge and supernatant from the surface impoundment tested separately, acceptably, and in accordance with the sampling frequency and analysis specified in the waste analysis plan?

☐ Yes ☐ No

Attach test results.

5. Do the hazardous waste residues (sludges or liquids) exceed the treatment standards specified in 268.41, or where no treatment standards are established for a waste, the applicable prohibition levels?

☐ Yes ☐ No

6. Provide the frequency of analyses conducted on treatment residues: _____

7. Does the operating record adequately document the results of waste analyses performed in accordance with 268.41?

_____ Yes _____ No

8. Do the hazardous waste residues exceed the treatment standards (268.41) or do not meet the prohibition levels?

Sludge _____ Yes _____ No

Supernatant _____ Yes _____ No

a. If yes, are sludge and supernatant removed adequately on an annual basis?

_____ Yes _____ No

b. Are adequate precautions taken to protect liners, and do records indicate that liner integrity is inspected?

_____ Yes _____ No

c. Are residues subsequently managed in another surface impoundment?

_____ Yes _____ No

d. Are residues treated prior to disposal?

_____ Yes _____ No

If yes, are waste residues treated on-site or off-site?

_____ On-site _____ Off-site

Identify treatment method: _____

E. Land Disposal

1. Are restricted wastes placed in land disposal units such as landfills, surface impoundments, waste piles, wells, land treatment units, salt domes/beds, mines/caves, or concrete vault or bunker?

_____ Yes _____ No

Note: Do not include surface impoundments addressed in D, Treatment in Surface Impoundments.

If yes, specify which units and what wastes each unit has received: _____

2. Are these wastes disposed of in a new, replacement, or laterally expanded landfill or impoundment that meets the minimum technology requirements (double liner and leachate collection) and groundwater monitoring?

_____ Yes _____ No

3. Does the facility operating record have notices, certifications, and demonstration (if applicable) from generators/storer/treaters for 5 years [268.7(c); 268.7(a),(b)]?

_____ Yes _____ No

4. Does the facility obtain waste analysis data or test the wastes (according to the waste analysis plan) to determine that the wastes comply with the applicable treatment standards [268.7(c)]?

_____ Yes _____ No

If yes, at what frequency? _____

5. If restricted wastes that exceed the treatment standards are placed in land disposal units (excluding national capacity variances) [268.30(a)], does facility have an approved waiver based on no migration petition [268.6], an approved case-by-case capacity extension [268.5], or variance [268.44]?

_____ Yes _____ No

6. Does the facility dispose of restricted wastes that are subject to a national capacity variance?

_____ Yes _____ No

7. Does the facility have notices [268.7(a)(3)] and records of disposal for disposed wastes that are subject to a national capacity variance, case-by-case extensions [268.5], or no migration petitions [268.6]?

____ Yes ____ No ____ NA

8. What is the volume of the restricted wastes disposed of to date?

9. If the facility has a case-by-case extension, is the facility making progress as described in progress reports?

____ Yes ____ No ____ NA

APPENDIX A

SOLVENT IDENTIFICATION CHECKLIST

1. Does the handler generate any of the following F001 constituents (i.e., spent halogenated solvents used in degreasing) as a result of being used in the process either in pure form or commercial grade?

tetrachloroethylene	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
trichloroethylene	<input type="checkbox"/> Yes	<input type="checkbox"/> No
methylene chloride	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1,1,1-trichloroethane	<input type="checkbox"/> Yes	<input type="checkbox"/> No
carbon tetrachloride	<input type="checkbox"/> Yes	<input type="checkbox"/> No
chlorinated fluorocarbons	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

2. Does the handler generate any of the following F002 constituents (i.e., spent halogenated solvents) as a result of being used in the process either in pure form or commercial grade?

tetrachloroethylene	<input type="checkbox"/> Yes	<input type="checkbox"/> No
trichloroethylene	<input type="checkbox"/> Yes	<input type="checkbox"/> No
methylene chloride	<input type="checkbox"/> Yes	<input type="checkbox"/> No
1,1,1-trichloroethane	<input type="checkbox"/> Yes	<input type="checkbox"/> No
chlorobenzene	<input type="checkbox"/> Yes	<input type="checkbox"/> No
trichlorofluoromethane	<input type="checkbox"/> Yes	<input type="checkbox"/> No
1,1,2-trichloro-1,2,2-trifluoroethane	<input type="checkbox"/> Yes	<input type="checkbox"/> No
ortho-dichlorobenzene	<input type="checkbox"/> Yes	<input type="checkbox"/> No

3. Does the handler generate any of the following F003 constituents (i.e., spent nonhalogenated solvents) as a result of being used in the process either in pure form or commercial grade?

xylene	<input type="checkbox"/> Yes	<input type="checkbox"/> No
acetone	<input type="checkbox"/> Yes	<input type="checkbox"/> No
ethyl acetate	<input type="checkbox"/> Yes	<input type="checkbox"/> No
ethyl benzene	<input type="checkbox"/> Yes	<input type="checkbox"/> No
ethyl ether	<input type="checkbox"/> Yes	<input type="checkbox"/> No
methyl isobutyl ketone	<input type="checkbox"/> Yes	<input type="checkbox"/> No
n-butyl alcohol	<input type="checkbox"/> Yes	<input type="checkbox"/> No
cyclohexanone	<input type="checkbox"/> Yes	<input type="checkbox"/> No
methanol	<input type="checkbox"/> Yes	<input type="checkbox"/> No

If the F003 waste stream has been mixed with a solid waste, does the resultant mixture exhibit the ignitability characteristic?

☐ Yes ☐ No

4. Does the handler generate any of the following F004 constituents (i.e., spent nonhalogenated solvents) as a result of being used in the process either in pure form or commercial grade?

cresols and cresylic acid
nitrobenzene

___ Yes ___ No
___ Yes ___ No

5. Does the handler generate any of the following F005 constituents (i.e., spent nonhalogenated solvents) as a result of being used in the process either in pure form or commercial grade?

toluene
methyl ethyl ketone
carbon disulfide
isobutanol
pyridine

☒ Yes ___ No
___ Yes ___ No
___ Yes ___ No
___ Yes ___ No
___ Yes ___ No

6. Are any of the constituents listed in questions 1 through 5 used for their "solvent" properties -- that is to solubilize (dissolve) or mobilize other constituents? The following questions will be helpful in confirming this determination.

- (a) Are the constituents used as chemical carriers?

___ Yes ___ No

If yes, list the constituents.

- (b) Are the constituents used for degreasing/cleaning?

☒ Yes ___ No

If yes, list the constituents.

Tetrachloroethylene, methylene chloride,
1,1,2,2-tetrachloroethane

- (c) Are the constituents used as diluents?

___ Yes ___ No

If yes, list the constituents.

- (d) Are the constituents used as extractants?

___ Yes ___ No

If yes, list the constituents.

(e) Are the constituents used for fabric scouring?

____ Yes ____ No

If yes, list the constituents.

(f) Are the constituents used as reaction and synthesis media?

____ Yes ____ No

If yes, list the constituents.

If the responses to questions 1 through 6 led the inspector to believe that the waste may be an F-solvent, answer question 7.

7. Are any of the above constituents spent solvents? (A solvent is considered "spent" when it has been used and is no longer usable without being regenerated, reclaimed, or otherwise reprocessed.)

✓ Yes ____ No

8. If the waste is a mixture of constituents as determined in questions 1 through 6, give the concentration before use of all the constituents in the solvent mixture/blend. For example:

5%	methylene chloride
2%	trichloroethylene
25%	1,1,1-trichloroethane
<u>68%</u>	mineral spirits
100%	

If the waste stream is a mixture containing a total of 10% or more (by volume) of one or more of the F001, F002, F004, or F005 listed constituents before use, it is a listed waste.

With respect to the F003 solvent wastes, if, before use, the waste stream is mixed and contains only F003 constituents, it is a listed waste. For example:

33%	acetone
16%	methanol
<u>51%</u>	ethyl ether
100%	

If the waste stream is a mixture containing F003 constituents and a total of 10% or more of one or more of the F001, F002, F004, and F005 listed constituents before use, it is a listed waste. For example:

50%	xylene (F003)
12%	TCE (F001)
<u>38%</u>	mineral spirits
100%	

If in light of the above, the handler appears to be generating F001 - F005 hazardous wastes, refer this facility to the enforcement official for followup actions verifying the use of solvents at the facility.

APPENDIX B
TREATMENT STANDARDS FOR F-SOLVENTS

F001-F005 SPENT SOLVENTS	CONCENTRATION (IN MG/L)	
	WASTEWATERS	OTHER WASTES
Acetone	0.05	0.59
N-butyl	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride	.05	.96
Chlorobenzene	.15	.05
Cresols (and cresylic acid)	2.82	.75
Cyclohexanone	.125	.75
1,2-dichlorobenzene	.65	.125
Ethyl acetate	.05	.75
Ethyl benzene	.05	.053
Ethyl ether	.05	.75
Isobutanol	5.0	5.0
Methanol	.25	.75
Methylene chloride	.20	.96
Methylene chloride (from the pharmaceutical industry)	0.44	.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,2,2-Trichlor 1,2,2-trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

APPENDIX C

DETAILED DESCRIPTION OF FIRST THIRD WASTE CODES

§ 251.31 Wastes

- F006—Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
- F007—Spent cyanide plating bath solutions from electroplating operations.
- F008—Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process.
- F009—Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
- F019—Wastewater treatment sludges from the chemical conversion coating of aluminum.

§ 251.32 Wastes

- K001—Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.
- K004—Wastewater treatment sludge from the production of zinc yellow pigments.
- K008—Over residue from the production of chrome oxide green pigments.
- K011—Bottom stream from the wastewater stripper in the production of acrylonitrile.
- K013—Bottom stream from the acetonitrile column in the production of acrylonitrile.
- K014—Bottoms from the acetonitrile purification column in the production of acrylonitrile.
- K015—Still bottoms from the distillation of benzyl chloride.
- K016—Heavy ends or distillation residues from the production of carbon tetrachloride.
- K017—Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.
- K018—Heavy ends from the fractionation column in ethyl chloride production.
- K019—Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.
- K020—Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.
- K021—Aqueous spent antimony catalyst waste from fluoromethanes production.
- K022—Distillation bottom tars from the production of phenol/acetone from cumane.
- K024—Distillation bottoms from the production of phthalic anhydride from naphthalene.
- K025—Distillation bottoms from the production of nitrobenzene by the nitration of benzene.
- K030—Column bottom or heavy ends from the combined production of trichloroethylene and perchloroethylene.
- K031—By-products salts generated in the production of MSMA and cacodylic acid.
- K035—Wastewater treatment sludges generated in the production of creosote.
- K036—Still bottoms from toluene reclamation distillation in the production of disulfoton.
- K037—Wastewater treatment sludge from the production of disulfoton.
- K044—Wastewater treatment sludges from the manufacturing and processing of explosives.
- K045—Spent carbon from the treatment of wastewater containing explosives.
- K046—Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.
- K047—Pink/red water from TNT operations.
- K048—Dissolved air flotation (DAF) float from the petroleum refining industry.
- K049—Stop oil emulsion solids from the petroleum refining industry.
- K050—Heat exchange bundle cleaning sludge from the petroleum refining industry.
- K051—API separator sludge from the petroleum refining industry.
- K052—Tank bottoms (lead) from the petroleum refining industry.
- K060—Ammonia still lime sludge from coking operations.
- K061—Emission control dust/sludge from the primary production of steel in electric furnaces.
- K062—Spent pickle liquor from steel finishing operations in chlorine production.
- K069—Emission control dust/sludge from secondary lead smelting.
- K071—Brine purification muds from the mercury cells process in chlorine production, where separately prepurified brine is not used.
- K073—Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes.
- K083—Distillation bottoms from aniline production.
- K084—Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
- K085—Distillation of fractionation column bottoms from the production of chlorobenzenes.
- K086—Solvent washes and sludges; caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.
- K087—Decanter tank tar sludge from coking operations.
- K099—Untreated wastewater from the production of 2,4-D.

K100—Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.

K101—Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

K102—Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

K103—Process residues from aniline extraction from the production of aniline.

K104—Combined wastewater streams generated from nitrobenzene/aniline production.

K106—Waste water treatment sludge from the mercury cell process in chlorine production.

§ 261.33(e) Wastes

P001—Warfarin, when present at concentration greater than 0.3%

P004—Aldrin

P005—Allyl alcohol

P010—Arsenic acid

P011—Arsenic (V) oxide

P012—Arsenic (III) oxide

P015—Beryllium dust

P016—Bis-(chloromethyl) ether

P018—Brucine

P020—Dinoseb

P030—Soluble cyanide salts not elsewhere specified

P036—Dichlorophenylarsine

P037—Dieldrin

P039—Disulfoton

P041—Diethyl-p-nitrophenyl phosphate

P048—2,4-Dinitrophenol

P050—Endosulfan

P058—Fluoroacetic acid, sodium salt

P059—Heptachlor

P063—Hydrogen cyanide

P068—Methyl Hydrazine

P069—Methyl lactonitrile

P070—Aldicarb

P071—Methyl parathion

P081—Nitroglycerine

P082—N-Nitrosodimethylamine

P084—N-Nitrosomethylvinylamine

P087—Osmium tetroxide

P089—Parathion

P092—Phenylmercuric acetate

P094—Phorate

P097—Famphur

P102—Propargyl alcohol

P105—Sodium azide

P108—Strychnine and salts

P110—Tetraethyl lead

P115—Thallium (I) sulfate

P120—Vanadium pentoxide

P122—Zinc phosphide, when present at concentrations greater than 10%

P123—Toxaphene

§ 261.33(f) Wastes

U007—Acrylamide

U009—Acrylonitrile

U010—Mitomycin C

U012—Aniline

U016—Benz(c)acridine

U018—Benz(a)anthracene

U019—Benzene

U022—Benz(a)pyrene

U029—Methyl bromide

U031—n-Butanol

U036—Chlordane, technical

U037—Chlorobenzene

U041—n-Chloro-2,3-epoxypropane

U043—Vinyl chloride

U044—Chloroform

U046—Chloromethyl methyl ether

U050—Chrysene

U051—Creosote

U053—Crotonaldehyde

U061—DDT

U063—Dibenz o (a, h) anthracene

U064—1,2,7,8 Dibenzo-pyrene

U066—Dibromo-3-chloropropane 1,2-

U067—Ethylene dibromide

U074—1,4-Dichloro-2-butene

U077—Ethane, 1,2-dichloro-

U078—Dichloroethylene, 1,1-

U086—N,N Diethylhydrazine

U089—Diethylstilbestrol

U103—Dimethyl sulfate

U105—2,4-Dinitrotoluene

U108—Dioxane, 1,4-

U115—Ethylene oxide

U122—Formaldehyde

U124—Furan

U129—Lindane

U130—Hexachlorocyclopentadiene

U133—Hydrazine

U134—Hydrofluoric acid

U137—Indeno(1,2,3-cd)pyrene

U151—Mercury

U154—Methanol

U155—Methapyrilene

U157—3-Methylcholanthrene

U158—4,4-Methylene-bis-(2-chloroaniline)

U159—Methyl ethyl ketone

U171—Nitropropane, 2-

U177—N-Nitroso-N-methylurea

U180—N-Nitrosopyrrolidine

U185—Pentachloronitrobenzene

U188—Phenol

U192—Pronamide

U200—Reserpine

U209—Tetrachloroethane, 1,1,1,2-

U210—Tetrachloroethylene

U211—Carbon tetrachloride

U219—Thiourea

U220—Toluene

U221—Toluenediamine

U223—Toluene diisocyanate

U226—Methylchloroform

U227—Trichloroethane, 1,1,1,2-

U228—Trichloroethylene

U237—Uracil mustard

U238—Ethyl carbamate

U248—Warfarin, when present at concentrations of 0.3% or less

U249—Zinc phosphide, when present at concentrations of 10% or less

APPENDIX D TREATMENT STANDARDS

Waste Type: Pharmaceuticals Industry Subcategory Wastewater
Revision

			Nonwastewaters		Wastewaters	
Waste No.	BDAT	Constituents	Total Composition	TCLP	Total Composition (mg/l)	TCLP
F001- F005	Wastewaters: Steam stripping process	Methylene Chloride			0.44	

Waste Type: Wastewater Treatment Sludges from Electroplating.
See Regulations for exceptions.

			Nonwastewaters		Wastewaters	
Waste No.	BDAT	Constituents	Total Composition (mg/kg)	TCLP (mg/l)	Total Composition (mg/l)	TCLP
F006	Nonwastewaters: Stabilization process using cement kiln dust as a binding agent.	Cadmium		0.066		
		Chromium (total)		5.2		
		Lead		0.51		
		Nickel		0.32		
		Silver		0.72		
	Wastewaters: Soft Hammer	Cyanides	Reserved	Reserved		

Waste Type: Bottom Sediment Sludge from the Treatment of
Wastewaters from Wood Preserving Processes that
Use Creosote and/or Pentachlorophenol.

			Nonwastewaters		Wastewaters	
Waste No.	BDAT	Constituents	Total Composition	TCLP (mg/kg)	Total Composition (mg/l)	TCLP
K001	Nonwastewaters and Wastewaters: Organic Constituents - rotary kiln incinerator	Napthalene	8.0		0.15	
		Pentachlorophenol	37.0		0.88	
		Phenanthrene	8.0		0.15	
		Pyrene	7.3		0.14	
		Toluene	0.14		0.14	
	Nonwastewaters: Metal Constituents - stabilization process	Xylenes	0.16		0.16	
		Lead		0.51	0.037	
	Wastewaters: Metal Constituents - chemical precipitation					

Waste Type: Still Bottoms from the Distillation of Benzyl Chloride

			Nonwastewaters		Wastewaters	
Waste No.	BDAT	Constituents	Total Composition	TCLP	Total Composition (mg/l)	TCLP
K015	Nonwastewaters: Liquid Injection Incinerator (based on premise of "no ash")	Anthracene	No land disposal	No land disposal	1.0	
		Benzal Chloride			0.28	
		Benzo (b and/or k)				
		Fluoranthene			0.29	
	Wastewaters: Organic Constituents - liquid injection Incineration Metal Constituents - chemical precipitation	Phenanthrene			0.27	
		Toluene			0.15	
		Chromium (total)			0.32	
		Nickel			0.44	

Waste Type: Production of Chlorinated Chemicals in the Organic Chemical Industry: heavy ends or distillation residues from the production of carbon tetrachloride (K016); heavy ends from the fractionation column in ethyl chloride production (K018); heavy ends from the distillation of ethylene dichloride in ethylene dichloride production (K019); heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production (K020); column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene (K030)

			Nonwastewaters		Wastewaters	
Waste No.	BDAT	Constituents	Total Composition (mg/kg)	TCLP	Total Composition (mg/l)	TCLP
K016	Nonwastewaters and Wastewaters: Organic Constituents - rotary kiln incineration	Hexachlorobenzene	28		0.033	
		Hexachlorobutadiene	5.6		0.007	
		Hexachlorocyclopentadiene	5.6		0.007	
		Hexachloroethane	28		0.033	
		Tetrachloroethene	6.0		0.007	
K018		Chloroethane	6.0		0.007	
		Chloromethane			0.007	
		1,1-Dichloroethane	6.0		0.007	
		1,2-Dichloroethane	6.0		0.007	
		Hexachlorobenzene	28		0.033	
		Hexachlorobutadiene	5.6		0.007	
		Hexachloroethane	28			
		Pentachloroethane	5.6		0.007	
		1,1,1-Trichloroethane	6.0		0.007	

Waste No.	BDAT	Constituents	Total Composition (mg/kg)	TCLP	Total Composition (mg/l)	TCLP
K019		Bis(2-Chloroethyl)ether	5.6		0.007	
		Chlorobenzene	6.0		0.006	
		Chloroform	6.0		0.007	
		p-Dichlorobenzene			0.008	
		1,2-Dichloroethane	6.0		0.007	
		Fluorene			0.007	
		Hexachloroethane	2.8		0.033	
		Naphthalene	5.6		0.007	
		Phenanthrene	5.6		0.007	
		1,2,4,5-Tetrachlorobenzene			0.017	
		Tetrachloroethene	6.0		0.007	
		1,2,4-Trichlorobenzene	19.0		0.023	
		1,1,1-Trichloroethane	6.0		0.007	
K020		1,2-Dichloroethane	6.0		0.007	
		1,1,2,2-Tetrachloroethane	5.6		0.007	
		Tetrachloroethene	6.0		0.007	
K030		o-Dichlorobenzene			0.008	
		p-Dichlorobenzene			0.008	
		Hexachlorobutadiene	5.6		0.007	
		Hexachloroethane	28		0.033	
		Hexachloropropene	19			
		Pentachlorobenzene	28			
		Pentachloroethane	5.6		0.007	
		1,2,4,5-Tetrachlorobenzene	14		0.017	
		Tetrachloroethene	6.0		0.007	
		1,2,4-Trichlorobenzene	19		0.023	

Waste Type: Distillation Bottom tars from the Production of Phenol/Acetone from Cumene

			Nonwastewaters		Wastewaters	
Waste No.	BDAT	Constituents	Total Composition (mg/k)	TCLP (mg/l)	Total Composition	TCLP
K022	Nonwastewaters:	Acetophenone	19			
	Organic Constituents -	Sum of Diphenylamine				
	fuel substitution unit	and Diphenylnitrosamine	13			
	Metal Constituents -	Phenol	12			
	stabilization treatment	Toluene	0.034			
	process	Chromium (total)		5.2		
		Nickel		0.32		

Waste Type: Distillation Bottom Tars from the Production of Phthalic Anhydride from Naphthalene

Waste No.	BDAT	Constituents	Nonwastewaters		Wastewaters	
			Total Composition (mg/kg)	TCLP	Total Composition (mg/l)	TCLP
K024	Nonwastewaters and Wastewaters: Rotary Kiln Incineration	Phthalic Acid	28		0.54	

Waste Type: Wastewater Treatment Sludge from the Production of Disulfoton

Waste No.	BDAT	Constituents	Nonwastewaters		Wastewaters	
			Total Composition (mg/kg)	TCLP	Total Composition (mg/l)	TCLP
K037	Nonwastewaters and Wastewaters: Rotary Kiln Incineration	Disulfoton Toluene	0.1 28		0.003 0.028	

Waste Type: Explosives Industry: Wastewater Treatment Sludges from the Manufacturing and Processing of Explosives (K044); Spent Carbon from the Treatment of Wastewater Containing Explosives (K045); Pink/Red Water from TNT Operations (K047).

Waste No.	BDAT	Constituents	Nonwastewaters		Wastewaters	
			Total Composition	TCLP	Total Composition	TCLP
K044 K045 K047	Open detonation/ open burning/chemical deactivation		No land disposal based on reactivity.		No land disposal based on reactivity.	

Waste Type: Wastewater Treatment Sludges from the Manufacturing, Formulation, and Loading of Lead-Based Initiating Compounds

Waste No.	BDAT	Constituents	Nonwastewaters		Wastewaters	
			Total Composition	TCLP (mg/l)	Total Composition	TCLP
	Nonwastewaters (nonreactive subcategory): Stabilization Process	Lead		0.18		

Waste Type: Petroleum Refining Industry: Dissolved Air Flotation Float (K048); Slop Oil Emulsion Solids (K049); Heat Exchanger Bundle Cleaning Sludge (K050); API Separator Sludge (K051); and Leaded Tank Bottoms (K052)

Waste No.	BDAT	Constituents	Nonwastewaters		Wastewaters	
			Total Composition (mg/kg)	TCLP (mg/l)	Total Composition (mg/l)	TCLP
K048	Nonwastewaters: Organic Constituents - solvent extraction and/or incineration	Benzene	9.5		0.011	
		Benzo(a)pyrene	0.84		0.047	
		Bis(2-ethylhexyl)phthalate	37		0.043	
		Chrysene	2.2		0.043	
		Di-n-butyl Phthalate	4.2		0.060	
		Ethylbenzene	67		0.011	
	Metal Constituents - stabilization process	Fluorene			0.050	
		Naphthalene	Reserved		0.033	
		Phenanthrene	7.7		0.039	
		Phenol	2.7		0.047	
		Pyrene	2.0		0.045	
		Toluene	9.5		0.011	
	Wastewaters: Organic Constituents - incineration	Xylenes	Reserved		0.011	
		Cyanides (total)	1.8			
		Arsenic		0.004		
		Chromium (total)		1.7	0.20	
		Nickel		0.048		
		Selenium		0.025		
		Lead			0.037	
		Anthracene	6.2		0.039	
K049		Benzene	9.5		0.011	
		Benzo(a)pyrene	0.84		0.047	
		Bis(2-ethylhexyl)phthalate	37		0.043	
		Carbon Disulfide			0.011	
		Chrysene	2.2		0.043	
		2,4-Dimethylphenol			0.033	
		Ethylbenzene	67		0.011	

K049

(Continued)

Naphthalene	Reserved	0.033
Phenanthrene	7.7	0.039
Phenol	2.7	0.047
Pyrene	2.0	0.045
Toluene	9.5	0.011
Xylenes	Reserved	0.011
Cyanides (total)	1.8	
Arsenic		0.004
Chromium (total)	1.7	0.020
Nickel		0.048
Selenium		0.025
Lead		0.037

K050

Benzo(a)pyrene	0.084	0.047
Phenol	2.7	0.047
Cyanides (total)	1.8	
Arsenic		0.004
Chromium (total)	1.7	0.20
Nickel		0.048
Selenium		0.025
Lead		0.037

K051

Acenaphthene		0.050
Anthracene	6.2	0.039
Benzene	9.5	0.011
Benzo(a)anthracene	1.4	0.043
Benzo(a)pyrene	0.84	0.047
Bis(2-ethylhexyl)phthalate	37	0.043
Chrysene	2.2	0.043
Di-n-butyl Phthalate	4.2	0.060
Ethylbenzene	67	0.011
Fluorene		0.050
Naphthalene	Reserved	0.033
Phenanthrene	7.7	0.039
Phenol	2.7	0.047
Pyrene	2.0	0.045
Toluene	9.5	0.011
Xylenes	Reserved	0.011
Cyanides (total)	1.8	
Arsenic		0.004
Chromium (total)	1.7	0.20
Nickel		0.048
Selenium		0.025
Lead		0.037

K052

Benzene	9.5	0.011
Benzo(a)pyrene	0.84	0.047
o-Cresol	2.2	0.011
p-Cresol	0.90	0.011
2,4-Dimethylphenol		0.033
Ethylbenzene	67	0.011
Naphthalene	Reserved	0.033
Phenanthrene	7.7	0.039
Phenol	2.7	0.047
Toluene	9.5	0.011
Xylenes	Reserved	0.011

K052	(Continued)	Cyanides (total)	1.8		
		Arsenic		0.004	
		Chromium (total)		1.7	0.20
		Nickel		0.048	
		Selenium		0.025	
		Lead			0.037

Waste Type: Emission Control Dust/Sludge from Primary Production of Steel in Electric Furnaces

Primary Production of Steel in Electric Furnaces			Nonwastewaters		Wastewaters	
Waste No.	BDAT	Constituents	Total Composition	TCLP (mg/l)	Total Composition	TCLP
K061	Nonwastewaters: High Zinc (15% or greater) Subcategory - high temperature metals recovery unit (HMR) Low Zinc (less than 15%) Subcategory - stabilization	Cadmium Chromium (total) Lead Nickel		0.14 5.2 0.24 0.32		

Waste Type: Spent Pickle Liquor Generated by Steel Finishing Operations of Facilities Within the Iron and Steel Industries

Steel Industries			Nonwastewaters		Wastewaters	
Waste No.	BDAT	Constituents	Total Composition	TCLP (mg/l)	Total Composition (mg/l)	TCLP
K062	Nonwastewaters and Wastewaters: Chromium Reduction, Chemical Precipitation with Sulfide, Settling, Filtering and Dewatering of Solid Residues	Chromium (total) Lead Nickel		0.094 0.037	0.032 0.04 0.44	

Waste Type: Emission Control Dust/Sludge from Secondary Lead Smelting

Nonwastewaters

Wastewaters

Waste No.	BDAT	Constituents	Total Composition	TCLP	Total Composition	TCLP
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K069	Nonwastewaters in Non-Calcium Sulfate Subcategory: recycling		No land disposal based on recycling.			
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Waste Type: Brine Purification Muds from the Mercury Cell Process in Chlorine Production, where Separately Prepurified Brine is Not Used

Nonwastewaters

Wastewaters

Waste No.	BDAT	Constituents	Total Composition	TCLP (mg/l)	Total Composition (mg/l)	TCLP
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K071	Nonwastewaters: Solubilize mercury in sludge and convert to insoluble mercury sulfide sludge.	Mercury		0.025	0.030	
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Waste Type: Distillation Bottoms from Aniline Production

Nonwastewaters

Wastewaters

Waste No.	BDAT	Constituents	Total Composition	TCLP	Total Composition	TCLP
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K083	Nonwastewaters and Wastewaters: No Ash Subcategory - Liquid Injection Incinerator		No land disposal based on no ash.			
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Waste Type: Solvent Washes and Sludges, Caustic Washes and Sludges, or Waterwashes and Sludges From the Cleaning of Tubs and Equipment Used in the Formulation of Ink Pigments, Driers, Soaps, and Stabilizers Containing Chromium and Lead

Nonwastewaters

Wastewaters

Waste No.	BDAT	Constituents	Total Composition (mg/kg)	TCLP (mg/l)	Total Composition (mg/l)	TCLP
K086	Nonwastewaters and Wastewaters, Solvent Washes Subcategory: Organic Constituents - Incineration Metal Constituents - hexavalent chromium reduction, chemical precipitation with excess lime, filtration	Acetone Bis(2-ethylhexyl)phthalate n-Butyl Alcohol Cyclohexanone 1,2-Dichlorobenzene Ethyl Acetate Ethyl Benzene Methanol Methylene Chloride Methyl Ethyl Ketone Methyl Isobutyl Ketone Naphthalene Nitrobenzene Toluene 1,1,1-Trichloroethane Trichloroethylene Xylenes Chromium (total) Lead	0.37 0.49 0.37 0.49 0.49 0.37 0.031 0.37 0.037 0.37 0.37 0.49 0.49 0.031 0.044 0.031 0.015 0.094 0.37		0.015 0.044 0.031 0.022 0.044 0.031 0.015 0.031 0.031 0.031 0.044 0.044 0.029 0.031 0.029 0.015 0.32 0.037	

Waste Type: Decanter Tank Tar Sludge from Coking Operations

Nonwastewaters

Wastewaters

Waste No.	BDAT	Constituents	Total Composition (mg/kg)	TCLP (mg/l)	Total Composition (mg/l)	TCLP
K087	Nonwastewaters and Wastewaters: Organic Constituents - Incineration in rotary kiln Metal Constituents - hexavalent chromium reduction, chemical precipitation with excess lime, filtration	Acenaphthalene Benzene Chrysene Fluoranthene Indeno (1,2,3-cd) pyrene Naphthalene Phenanthrene Toluene Xylenes Lead	3.4 0.071 3.4 3.4 3.4 3.4 3.4 0.65 0.070		0.028 0.014 0.028 0.028 0.028 0.028 0.008 0.014 0.037	0.51

Waste Type: Untreated Wastewater from the Production of
2,4-Dichlorophenoxyacetic Acid (2,4,D)

Waste No.	BDAT	Constituents	Nonwastewaters		Wastewaters	
			Total Composition (mg/kg)	TCLP	Total Composition (mg/l)	TCLP
K022	Nonwastewaters and Wastewaters: Chemical oxidation using chlorine.	2,4-Dichlorophenoxyacetic Acid	1.0		1.0	
		Hexachlorodibenzo-p- dioxins	0.001		0.001	
		Hexachlorodibenzofurans	0.001		0.001	
		Pentachlorodibenzo-p- dioxins	0.001		0.001	
		Pentachlorodibenzofurans	0.001		0.001	
		Tetrachlorodibenzo-p- dioxins	0.001		0.001	
		Tetrachlorodibenzofurans	0.001		0.001	

Waste Type: Production of Veterinary Pharmaceuticals from Arsenic
or Organo Arsenic Compounds: Distillation Tar Residues
from the Distillation of Aniline-Based Compounds (K101);
Residue from the Use of Activated Carbon for Discolorization (K102)

Waste No.	BDAT	Constituents	Nonwastewaters		Wastewaters	
			Total Composition (mg/kg)	TCLP (mg/l)	Total Composition (mg/l)	TCLP
K101	Nonwastewaters and Wastewaters: Low Arsenic (less than 1X total arsenic) Subcategory - Incineration in rotary kiln	Ortho-Nitroaniline	14		0.27	
		Cadmium		0.066	2.0	
		Chromium (total)		5.2	0.24	
		Lead		0.51	0.11	
		Nickel		0.32	0.027	
K102		Ortho-Nitrophenol	13		0.028	
		Cadmium		0.066	2.0	
		Chromium (total)		5.2	0.24	
		Lead		0.51	0.11	
		Nickel		0.32	0.027	

Waste Type: Production of Aniline and Nitrobenzene/Aniline
Process Residues from Aniline Extraction (K103) and
Combined Wastewater Streams Generated from
Nitrobenzene/Aniline Production (K104)

Waste No.	BDAT	Constituents	Nonwastewaters		Wastewaters	
			Total Composition (mg/k)	TCLP	Total Composition (mg/l)	TCLP
K103	Nonwastewaters and Wastewaters: Organic Constituents - solvent extraction, steam stripping, activated carbon adsorption, and incineration	Aniline	5.6		4.5	
		Benzene	6.0		0.15	
		2,4-Dinitrophenol	5.6		0.61	
		Nitrobenzene	5.6		0.073	
		Phenol	5.6		1.4	
K104		Aniline	5.6		4.5	
		Benzene	6.0		0.15	
		2,4-Dinitrophenol	5.6		0.61	
		Nitrobenzene	5.6		0.073	
		Phenol	5.6		1.4	
		Cyanides (total)	1.8		2.7	

Waste Type: Wastewater Treatment Sludge from the Production
of Zinc Yellow Pigments

Waste Type: Waste Sludge from the Production of Zinc Yellow Pigments			Nonwastewaters		Wastewaters	
Waste No.	BDAT	Constituents	Total Composition	TCLP	Total Composition	TCLP
K004	No land disposal based on no generation.					

Waste Type: Oven Residue from the Production of Chrome Oxide
Green Pigments

Green Pigments			Nonwastewaters		Wastewaters	
Waste No.	BDAT	Constituents	Total Composition	TCLP	Total Composition	TCLP
K008	No land disposal based on no generation.					

Waste Type: Aqueous Spent Antimony Catalyst Waste From
Fluoromethanes Production

Nonwastewaters

Wastewaters

Waste No.	BDAT	Constituents	Total Composition	TCLP	Total Composition	TCLP
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K021	No land disposal based on no generation.					
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Waste Type: Distillation Bottoms from the Production of
Nitrobenzene by the Nitration of Benzene

Nonwastewaters

Wastewaters

Waste No.	BDAT	Constituents	Total Composition	TCLP	Total Composition	TCLP
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K025	No land disposal based on no generation.					
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Waste Type: Still Bottoms from Toluene Reclamation Distillation
In the Production of Diisulfoton

Nonwastewaters

Wastewaters

Waste No.	BDAT	Constituents	Total Composition	TCLP	Total Composition	TCLP
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K036	No land disposal based on no generation.					
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Waste Type: Ammonia Still Lime Sludge from Coking Operations

Nonwastewaters

Wastewaters

Waste No.	BDAT	Constituents	Total Composition	TCLP	Total Composition	TCLP
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K060	No land disposal based on no generation.					
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Waste Type: Waste Leaching Solution from Acid Leaching of
Emission Control Dust/Sludge from Secondary Lead
Smelting

Waste No.	BDAT	Constituents	Nonhazardous		Hazardous	
			Total Composition	TCLP	Total Composition	TCLP

K100	No land disposal based on no generation.					
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